## JC10 Rec'd PCT/PTO 28 OCT 2005

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Maria Cristina Rosa Geroni, et al. Applicants:

**Examiner:** 

Unassigned

Serial No:

10/549,713

**Art Unit:** 

Unassigned

Filed:

September 16, 2005

Docket:

18269 (PC27483A)

For:

COMBINED THERAPY AGAINST

Dated:

October 26, 2005

TUMORS COMPRISING NEMORUBICIN

WITH RADIATION THERAPY

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

## INFORMATION DISCLOSURE STATEMENT

In accordance with 37 C.F.R. §§ 1.97 and 1.98, it is requested that the following references, which are also listed on the attached Form PTO-1449, be made of record in the above-identified case.

- 1. United States Patent No. 4,672,057, dated June 9, 1987 to Bargiotti et al.;
- 2. United States Patent No. 4,710,564, dated December 1, 1987 to Otake et al.;
- 3. Bonner J.A. et al., "Doxorubicin Decreases the Repair of Radiation-Induced DNA Damage", International Journal of Radiation Biology, 57(1):55-64 (1990), XP-009033771;

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)** 

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Dated: October 26, 2005

Peter I. Bernstein

- 4. Kabuto M. et al., "Antitumor Effect of MX2, a New Morpholino Anthracycline Against C6 Glioma Cells and its Combination Effect with Photodynamic Therapy in Vitro!", *Brain and Nerve*, 47(10):969-973 (1995), XP-009033767;
- 5. UK Patent Publication No. GB 2 294 495 A, published May 1, 1996;
- 6. UK Patent Publication No. GB 2 296 495 A, published July 3, 1996;
- 7. UK Patent Publication No. GB 2 315 067 A, published January 21, 1998;
- 8. UK Patent Publication No. GB 2 325 067 A, published November 11, 1998;
- 9. Bonner J.A. et al., "Doxorubicin Enhances Radiation-Induced DNA Damage", *International Journal of Radiation Oncology, Biology, Physics, 15(1)*:163 (1988), XP-009033770;
- 10. Chenoufi N. et al., "In Vitro Demonstration of Synergy Between Radionuclide and Chemotherapy", *The Journal of Nuclear Medicine*, 39(5):900-903 (1998), XP-009033769;
- 11. Wu Li-Teh, "Doxorubicin as Radiation Potentiator: Concurrent Doxorubicin and Radiation Therapy Interaction and its Clinical Application", *Infusion Chemotherapy-Irradiation Interactions, Chapter 13*:147-151 (1998), XP-002289046;
- 12. Jagetia G.C. et al., "Effect of Doxorubicin on Cell Survival and Micronuclei Formation in HeLa Cells Exposed to Different Doses of Gamma-Radiation", *Strahlentherapie Onkologie*, 176(9):422-428 (2000), XP-002289047;
- 13. Beulz-Riche D. et al., "Metabolism of Methoxymorpholino-Doxorubicin in Rat, Dog and Monkey Liver Microsomes: Comparison with Human Microsomes", Fundamental & Clinical Pharmacology 15:373-378 (2001);
- 14. Fraier D. et al., "LC-MS-MS Determination of Nemorubicin (Methoxymorpholinyldoxorubicin, PNU-152243A) and its 13-OH Metabolite (PNU-155051A) in Human Plasma", *Journal of Pharmaceutical and Biomedical Analysis* 30(3):377-389 (2002);
- 15. Geroni C. et al., "The Combination of Nemorubicin with Cisplatin and Mitomycin C is Synergistic in Experimental Tumor Models", *European Journal of Cancer*, page S20 (2002), XP-004403486;

16. Geroni C. et al., "Preclinical Activity Against Liver Metastases of Nemorubicin, a DNA-Intercalating Cytotoxic Agent for the Treatment of Hepatocellular Carcinoma", *European Journal of Cancer 38*:S19 (2002),

XP-004403483;

17. Opolski A. et al., "Properties of the New Anthracycline Derivative Containing Modified Daunosamine Moiety", European Journal of Cancer 38:S19-S20

(2002), XP-004403485; and

18. PCT International Publication No. WO 03/082267 A1, published

October 9, 2003.

Reference nos. 1-4, 6, 7, 9-12 and 15-18 were cited in a Search Report dated

August 5, 2004 received from the European Patent Office. Applicants are submitting copies of

the above-cited references, together with a copy of the Search Report. The relevance of above-

identified reference nos. 11-4, 6, 7, 9-12 and 15-18 has been described in the Search Report. The

relevance of above-identified reference nos. 1, 2, 8, 13 and 14 has been described in the

specification.

Inasmuch as this Information Disclosure Statement is being submitted in

accordance with the schedule set out in 37 C.F.R. §1.97(b), no statement or fee is required.

Respectfully submitted,

Peter I. Bernstein

Total I. Bernstein

Registration No.: 43,497

Scully, Scott, Murphy & Presser 400 Garden City Plaza, Suite 300 Garden City, New York 11530

(516) 742-4343

PIB:dg

Form PTO-1449 U.S. DEPARTMENT OF COMMERCE (REV. 7-80) PATENT AND TRADEMARK OFFICE				Atty. Docket No. (Optional)		Application Number				
LIST OF PRIOR ART CITED BY APPLICANT				18269 (PC27483A)			10/549,713			
(Use several sheets if necessary)										
					plicant(s)	1				
				Maria Cristina Rosa Geroni, et al.  Filing Date Group Art Unit						
				September 16, 2005			Unassigned			
			U.S. PA	TEN	NT DOCUMENTS					
EXAMINER INITIAL*					NAME	CLASS	SUBCLASS	SUBCLASS FILING DATE (if appropriate)		
	AA	4,672,057	6/9/87		Bargiotti et al.					
	AB	4,710,564	12/1/87		Otake et al.			_		
FOREIGN PATENT DOCUMENTS										
	REF DOCUMENT NUMBER DAT		DATE	COUNTRY		CLASS	SUBCLASS	TRANSLATION		
								YES	NO	
	GB 2 294 495 A		5/1/96		United Kingdom					
	GB 2 296 495 A		7/3/96		United Kingdom					
·	- 1	GB 2 315 067 A	1/21/98		United Kingdom					
	GB 2 325 067 A		11/11/98		United Kingdom					
	WO 03/082267 A1		10/9/03		PCT					
			OTHER	DO	OCUMENTS (Including A	uthor, Title, I	Date, Pertinent	Pages, Etc.)		
Bonner J.A. et al., "Doxorubicin Decreases the Repair of Radiation-Induced DNA Damage", International Journal of Radiation Biology, 57(1):55-64 (1990), XP-009033771										
	Kabuto M. et al., "Antitumor Effect of MX2, a New Morpholino Anthracycline Against C6 Glioma Cells and its Combination Effect with Photodynamic Therapy in Vitro!", <i>Brain and Nerve</i> , 47(10):969-973 (1995), XP-009033767									
	Bonner J.A. et al., "Doxorubicin Enhances Radiation-Induced DNA Damage", International Journal of Radiation Oncology, Biology, Physics, 15(1):163 (1988), XP-009033770									
	Chenoufi N. et al., "In Vitro Demonstration of Synergy Between Radionuclide and Chemotherapy", <i>The Journal of Nuclear Medicine</i> , 39(5):900-903 (1998), XP-009033769									
EXAMINER DATE CONSIDERED										
		if reference considered, whether e copy of this form with next com				draw line thro	ugh citation if no	t in conform	ance and	

Sheet 2 of 2

Form PTO-1449 U.S. DEPARTMENT OF COMMERCE (REV ,7-80) PATENT AND TRADEMARK OFFICE				Atty. Docket No. (Optional)		Application Number			
LIST OF PRIOR ART CITED BY APPLICANT			18269 (PC27483A)		10/549,713				
(	Use se	everal sheets if necessary	<i>)</i> )						
					olicant(s)			<del></del>	
					ria Cristina Rosa Ger	oni, et al.	Crown Art II		
				Filing Date Group Art Unit September 16, 2005 Unassigned					
			FOREIGN		TENT DOCUMENTS				
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
								YES	NO
			OTHER	DO	CUMENTS (Including A	uthor, Title, i	Date, Pertinent	Pages, Etc.)	
	Wu Li-Teh, "Doxorubicin as Radiation Potentiator: Concurrent Doxorubicin and Radiation Therapy Interaction and its Clinical Application", <i>Infusion Chemotherapy-Irradiation Interactions, Chapter 13</i> :147-151 (1998), XP-002289046								
		Jagetia G.C. et al., "Effect of Doxorubicin on Cell Survival and Micronuclei Formation in HeLa Cells Exposed to Different Doses of Gamma-Radiation", Strahlentherapie Onkologie, 176(9):422-428 (2000), XP-002289047							
		Beulz-Riche D. et al., "Metabolism of Methoxymorpholino-Doxorubicin in Rat, Dog and Monkey Liver Microsomes: Comparison with Human Microsomes", Fundamental & Clinical Pharmacology 15:373-378 (2001)							
		Fraier D. et al., "LC-MS-MS Determination of Nemorubicin (Methoxymorpholinyldoxorubicin, PNU-152243A) and its 13-OH Metabolite (PNU-155051A) in Human Plasma", <i>Journal of Pharmaceutical and Biomedical Analysis</i> 30(3):377-389 (2002)							
		Geroni C. et al., "The Combination of Nemorubicin with Cisplatin and Mitomycin C is Synergistic in Experimental Tumor Models", <i>European Journal of Cancer</i> , page S20 (2002), XP-004403486							
		Geroni C. et al., "Preclinical Activity Against Liver Metastases of Nemorubicin, a DNA-Intercalating Cytotoxic Agent for the Treatment of Hepatocellular Carcinoma", European Journal of Cancer 38:S19 (2002), XP-004403483							
	Opolski A. et al., "Properties of the New Anthracycline Derivative Containing Modified Daunosamine Moiety", European Journal of Cancer 38:S19-S20 (2002), XP-004403485								
EXAMINER DATE CONSIDERED					E CONSIDERED		·		
		l if reference considered, whether				lraw line thro	ugh citation if no	ot in conform	ance and
not considere	d. Inclu	de copy of this form with next com	munication to	applica	ant.				

PCT

TRA	NSMITTA	Docket No. 18269 (PC27483A)								
In Re Application 21: Maria Cristina Rosa Geroni, et al.  OCT 2 8 7005										
Application No. Filing Date Examiner Customer No. Group Art Unit Confirmation No.										
10/	549,713	September 16, 2005	Unassigned	23389	Unassigned	Unassignd				
Title:  COMBINED THERAPY AGAINST TUMORS COMPRISING NEMORUBICIN WITH RADIATION THERAPY										
Address to:  Commissioner for Patents  P.O. Box 1450  Alexandria, VA 22313-1450										
			37 CFR 1.97(b)							
1. It Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.										
!			37 CFR 1.97(c)							
The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:										
☐ the statement specified in 37 CFR 1.97(e);										
OR										
the fee set forth in 37 CFR 1.17(p).										

## TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT Docket No. 18269 (PC27483A) (Under 37 CFR 1.97(b) or 1.97(c)) Maria Cristina Rosa Geroni, et al. In Re Application of: Customer No. Group Art Unit Confirmation No. Examiner Filing Date Application No. Unassignd 23389 Unassigned Unassigned September 16, 2005 10/549,713 Title: COMBINED THERAPY AGAINST TUMORS COMPRISING NEMORUBICIN WITH RADIATION THERAPY **Payment of Fee** (Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p)) is attached. A check in the amount of 19-1013/SSMP The Director is hereby authorized to charge and credit Deposit Account No. as described below. Charge the amount of Credit any overpayment. X Charge any additional fee required. ☐ Payment by credit card. Form PTO-2038 is attached. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. Certificate of Mailing by First Class Mail Certificate of Transmission by Facsimile\* I hereby certify that this correspondence is being deposited with I certify that this document and authorization to charge deposit the United States Postal Service with sufficient postage as first account is being facsimile transmitted to the United States Patent class mail in an envelope addressed to "Commissioner for and Trademark Office (Fax. No. ) on Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on October 26, 2005 (Date) (Date) Person Mailing Correspondence Signature Signature of Peter I. Bernstein Typed or Printed Name of Person Mailing Certificate Typed or Printed Name of Person Signing Certificate \*This certificate may only be used if paying by deposit account. Dated: October 26, 2005 Signature Peter I. Bernstein Registration No. 43,497

CC: